

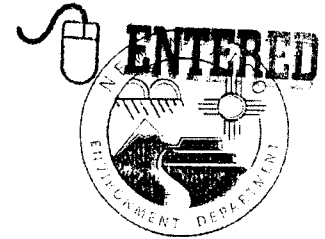
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RON CURRY
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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

January 26, 2010

Mr. Ed Riege
Environmental Manager
Western Refining, Southwest Inc.,
Gallup Refinery
Route 3, Box 7
Gallup, New Mexico 87301

**RE: REJECTION
ANNUAL GROUNDWATER MONITORING REPORT:
GALLUP REFINERY - 2008
WESTERN REFINING COMPANY, SOUTHWEST, INC., GALLUP REFINERY
EPA ID # NMD000333211
HWB-GRCC-09-004**

Dear Mr. Riege:

The New Mexico Environment Department (NMED) received the *Annual Groundwater Monitoring Report: Gallup Refinery - 2008* (Report), dated September 1, 2009, submitted on behalf of Western Refining Company, Southwest Inc., Gallup Refinery (the Permittee). NMED has reviewed the Report and hereby rejects the Permittee's submittal. The Permittee did not follow the Oil Conservation District (OCD) Discharge Permit (GW-032) Items 16 through 20, as required, based the sampling and reporting on an unapproved Facility-Wide Groundwater Monitoring Work Plan, and did not sufficiently comply with NMED's March 26, 2009 *Notice of Disapproval Oil Conservation Division (OCD) 2007 Annual Groundwater Report (and OCD Addendum)*. The Permittee must re-submit the Report after addressing the following comments.

Comment 1

The Permittee did not follow the OCD Discharge Permit GW-032 Items 16 through 20 as directed by previous NMED correspondence (see January 16, 2008 *Notice of Disapproval Oil Conservation Division (OCD) 2006 Annual Groundwater Report (and OCD Addendum)*) and the

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March 26, 2009 *Notice of Disapproval Oil Conservation Division (OCD) 2007 Annual Groundwater Report (and OCD Addendum)*). Instead, the Permittee followed the unapproved Facility-Wide Groundwater Monitoring Plan (Monitoring Plan) for which NMED sent a *Notice of Disapproval Facility Wide Groundwater Monitoring Work Plan* on December 16, 2009. Since the Permittee conducted unapproved work, NMED may require additional fieldwork. Any reference to the Monitoring Plan must be removed from the Report.

Comment 2

In Section 2.2, Monitoring and Sampling Program, page 16, the Permittee references the Monitoring Plan for information regarding sample collection and analysis, sampling procedures, data quality objectives, and quality assurance control methods; however, the Permittee did not describe these items in sufficient detail in the Monitoring Plan (*see NMED's December 16, 2009 Notice of Disapproval*). NMED directed the Permittee to describe the methods and procedures used in the field in several letters (*see NMED's June 1, 2005 Approval with Modifications Giant Ciniza Refinery 2003 OCD Annual Reports GW-32; NMED's March 13, 2006 Approval with Modifications 2004 Annual Groundwater Monitoring Report; NMED's March 26, 2009 Notice of Disapproval Oil Conservation Division (OCD) 2007 Annual Groundwater Report (and OCD Addendum)*). The Permittee failed to include these descriptions in the Report. The Permittee must comply with NMED's previous directives and describe in detail the methods and procedures used in the field and ensure that the descriptions reflect the actual methods used in the field when monitoring was conducted.

Comment 3

The Permittee did not discuss deviations from the OCD Discharge Permit sampling requirements. NMED has previously directed the Permittee to include discussion of deviations (*see NMED's June 1, 2005 Approval with Modifications Giant Ciniza Refinery 2003 OCD Annual Reports GW-32; NMED's March 13, 2006 Notice of Disapproval Oil Conservation Division (OCD) 2007 Annual Groundwater Report (and OCD Addendum); NMED's April 1, 2008 Approval Revised Oil Conservation Division (OCD) 2006 Annual Groundwater Monitoring Report (and OCD Addendum); NMED's March 26, 2009 Notice of Disapproval Oil Conservation Division (OCD) 2007 Annual Groundwater Report (and OCD Addendum)*). The Permittee must include a discussion of all deviations from the OCD Discharge Permit.

Comment 4

The Permittee did not include a discussion about investigation derived waste (IDW). NMED has directed the Permittee to include this information in previous correspondence (*see NMED's April 1, 2008 Approval Revised Oil Conservation Division (OCD) 2006 Annual Groundwater Monitoring Report (and OCD Addendum) NMED's March 26, 2009 Notice of Disapproval Oil Conservation Division (OCD) 2007 Annual Groundwater Report (and OCD Addendum)*). The Permittee must include a discussion of IDW handling and disposal conducted during the 2008 groundwater monitoring event.

Comment 5

In Section 2.1, Groundwater elevation surveys, page 16, the Permittee states, "[w]ater level and SPH thickness measurements are collected using an oil/water interface probe: Solinst Model 122. Solinst Oil/Water Interface Meters give clear and accurate measurements of product level and thickness in wells. The factory-sealed probes are pressure proof and the model used at the Gallup Refinery has a tape length of 100 feet. The 5/8" (16mm) diameter P1 Probe allows easy access through tight spaces and into narrow wells. The Probe is designed for use in various monitoring applications. The technician records separate phase hydrocarbon (SPH), depth to water (DTW), and total well depth using the tape. The probe and tape is first washed with non-phosphate soap water then with de-ionized or distilled water before lowering into the well casing. Recovery wells with free product are checked using a reel gauge with water and hydrocarbon finding paste." The Permittee must describe how the probe works (i.e., how does the probe give "clear and accurate measurements") and how it was used in the field. Additionally, the Permittee must explain why the tape and paste method is still being utilized if the oil/water interface probe is being used. The Permittee must clarify if tape and paste, electronic interface probe or both are being used in the field and identify which wells each method was used.

Comment 6

The Permittee lists the wells and the frequency with which they must be sampled in Table 1 of the Report. Table 1 includes SMW-6 which has been closed; therefore it cannot be sampled and must be removed from the list of wells to sample. The Permittee must ensure Table 1 reflects monitoring well sampling based on the wells actually sampled. Additionally, the Permittee must remove SMW-6 from the sampling result summary tables (e.g., Table 31: Well Water Elevation Data -- 2008).

Comment 7

In Figure 3, the Permittee shows monitoring wells SMW-6A, SMW-6B, and SMW-6C; however, these wells have been abandoned. Additionally, wells PW-2, PW-3 and PW-4 are missing from the figure. The Permittee must revise the figure to remove the SMW-6 wells if they have been abandoned, and add the PW wells.

Comment 8

In the Report, Sections 2.3 (East Side) and 2.4 (West Side), the Permittee lists the wells in each investigation area. In Section 2.3.2 (Sampling Frequency and Analyses) on page 20, the Permittee states that "[o]n a quarterly basis, groundwater samples are collected from each of the OW wells in the East Side and analyzed for the following chemical constituents: VOCs (EPA method 8260B), BTEX plus MTBE (EPA method 8021B)." The frequency of sampling the OW wells is incorrect, according to the OCD Discharge Permit: OW-13 is sampled annually; OW-14 is sampled semi-annually; OW-29 and OW-30 are sampled annually. The Permittee does not list

sampling frequency and analyses for the recovery wells (RW-1, RW-2, RW-5, and RW-6 must be sampled on an annual basis). Section 2.5, the West Side investigation area only lists the wells, outfalls, and ponds to be sampled, but does not provide any information regarding the frequency of sampling or the analyses used. These sections do not provide sufficient descriptions of the monitoring program; the Permittee must discuss the monitoring program in considerably more detail.

Comment 9

Table 2: Summary of sampling locations, frequencies, and tests required, does not include the requirements of the OCD Discharge Permit. For example, for A1-2 to EP-1 the Permittee must test for WQCC metals, but the table has RCRA 8 metals listed. The Permittee must ensure that Table 2 reflects the requirements in the OCD Discharge Permit.

Comment 10

In Section 2.5, Remediation Activities, the Permittee states that, "Separated Phase Hydrocarbons (SPHs) have been found in wells RW-1, RW-5, and RW-6. In the past, these were recovered either through the use of pumps, or via hand-bailing. Sections 4.3 and 4.4 and Appendix A provide details of the volumes of product recovered and the dates and depths to water and SPH that we have measured in these wells. In 2008, this volume was approximately 4 gallons from RW-1. In the past, product was also recovered from RW-5 and RW-6." Sections 4.3 and 4.4 and Appendix A do not describe how the SPH was recovered in RW-1 in 2008. The Permittee must describe the methods and procedures used to sample the recovery wells.

Comment 11

In Table 32: Volume of product recovered in 2008 from RW-1, on page 66, the table contains several problems. The column for the date does not contain dates, but apparently random numbers. The numbers in the columns "Depth to Product" and "Depth to Water" do not have the same values that are found in Appendix A (Summary of Separate Phase Hydrocarbons Recovered). The column for "Product Level Thickness" contains all zeros, which is incorrect since product was recovered from the well. A similar problem occurs in Table 31: Well Water Elevation Data – 2008, where numbers do not match what is written on the water well logs in Appendix C (Well and field logs). For example, see RW-5, in Table 31; the "Depth to Separate Phase Hydrocarbon (SPH)" is recorded as 33.1875 for the 2/18/2008 sampling event whereas in Appendix C the level is recorded as 33.19. The methods of measurement described in the Report are not capable of measuring to an accuracy of 0.0001 foot. The Permittee must ensure that all tables are accurate, present the correct data, reflect the data collected in the field, and are consistent with what is presented in the text.

Comment 12

In several tables (e.g., Table 8: METHOD 8260B VOLATILES, EPA METHOD 8021B SEMI VOLATILES; Table 13: EPA METHOD 8260B VOLATILES, EPA METHOD 8015C

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DRO/GRO) the Permittee lists an incorrect standard for benzene; the table lists the RRSL as 0.00041 whereas the standard is 0.41 (an apparent issue between mg/L and ug/L). The Permittee must ensure that all tables are accurate and present the correct values and units for the standards and analytes.

Comment 13

In NMED's March 26, 2009 NOD (Comment 13), NMED required that stated, "[i]n the next Annual Report, the Permittee must provide an explanation for this change in the months the sampling occurs, and clarify if OW-11 was sampled in July or August or both (OW-11 must be sampled annually)." The Permittee did not address this issue in the Report, and must explain all changes to the sampling schedule. The Permittee is reminded that all corrections made in response to comments included in NODs must be applied to all future reports as appropriate.

Comment 14

In a footnote to Table 16: EPA METHOD 7470 MERCURY, 6010B TOTAL RECOVERABLE METALS the Permittee states, "12-2-08 4th QUARTER 6010B analyses not run." However, in Appendix I (Laboratory Analytical Reports), under the December 2008 tab, laboratory data are listed for all of the Evaporation Ponds using the 6010B analyses. The Permittee must correct the table and include the laboratory data results in the Report. The Permittee must ensure that the information provided in the Report is consistent between information presented in the text, tables, and appendices.

Comment 15

On page 73, the Inlets to AL-1 and AL-2 section, the Permittee apparently leaves off mid-sentence at the end of the paragraph.

Comment 16

Many of the data tables are poorly organized and include inaccurate numbers and notes. The Permittee must ensure that headings carry over to the proceeding pages if tables do not fit on one page. For example, Table 31: Well Water Elevation Data – 2008 covers multiple pages, but the heading is only on the first page. Another example is Table 12: EPA 6010B TOTAL RECOVERABLE METALS, which is spread over two pages whereas it could fit on one page (in landscape format). Additionally, Table 13: EPA METHOD 8260B VOLATILES, EPA METHOD 8015B DRO/GRO contains notes from the previous year's analytical results; the Permittee must ensure that all text relates to the 2008 sampling event. It is important to present the data in a clear and organized manner, because NMED uses the tables to review the Report and also as reference material. NMED has attached examples of tables for the Permittee's use.

Comment 17

In Table 8: METHOD 8260B VOLATILES, EPA METHOD 8021B SEMI VOLATILES the Permittee states that "[q]uarterly sampling of OW-13, 14, 29, & 30 began Fourth Quarter 2008."

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The same note is made in Tables 9 and 10. The Permittee must provide an explanation why sampling did not start on time and why all four quarters are not included in the Report. Unless a deviation from the OCD sampling requirements is provided, all quarters of sampling must be included in the Report.

Comment 18

In Table 31: Well Water Elevation Data – 2008 (see also Comments 10 and 14), the table does not contain enough information. The Permittee must revise the table to add a column with the length of the screened interval (i.e., BW-1C screened interval 125 - 135ft) for all wells. The Permittee must also add a column with the purge volumes for all wells.

The Permittee must address all comments contained in this letter and re-submit the Report to NMED and OCD on or before March 26, 2010. Because NMED rejects the Report, NMED will view the March 26, 2010 submittal as a new report subject to fees under 20.4.2 NMAC.

If you have questions regarding this NOD please contact Kristen Van Horn of my staff at 505-476-6046.

Sincerely,



James P. Bearzi
Chief
Hazardous Waste Bureau

cc: J. Kieling, NMED HWB
D. Cobrain NMED HWB
H. Monzeglio NMED HWB
K. Van Horn NMED HWB
C. Chavez, OCD
R. Gaurav, Gallup
File: Reading File and GRCC 2010 File
HWB-GRCC-09-004

Example Table

Table 8: Summary of BTEX detected in Observation Wells and Monitoring Wells (2005-2008)

Sample ID	Collection Date	Method	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MIBE (mg/L)
Standards	NMWQS		0.01	0.75	0.75	0.62	NS
	EPA MCLS		0.005	1.0	0.7	10.0	NS
	RRSL		0.41	0.0015	0.0015	0.2	0.012
OW #12	8/19/2008	EPA 8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	12/27/2007	EPA 8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/27/2006	EPA 8260B	<0.001	<0.001	<0.001	<0.0015	<0.0025
OW #13	11/13/2008	EPA 8260B	<0.001	<0.001	<0.001	<0.0015	0.0016
	8/19/2008	EPA 8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/27/2007	EPA 8260B	<0.001	<0.001	<0.001	<0.0015	0.0013
	10/27/2006	EPA 8260B	<0.001	<0.001	<0.001	<0.001	<0.0025
OW #14	11/12/2008	EPA 8021B	0.0082	<0.001	<0.001	<0.002	0.91
	8/21/2008	EPA 8260B	0.0035	<0.001	<0.001	<0.0015	1.3
	1/1/2008	EPA 8260B	0.014	<0.001	<0.001	<0.0015	0.92
	12/28/2006	EPA 8260B	0.0042	<0.001	0.0025	<0.003	0.18
	10/27/2006	EPA 8260B	0.0034	<0.001	<0.001	<0.003	0.016
	9/27/2005	EPA 8260B	0.017	0.0022	0.0023	0.0014	0.077
OW #29	11/14/2008	EPA 8260B	<0.001	<0.001	<0.001	<0.0015	0.015
	8/19/2008	EPA 8260B	<0.001	<0.001	<0.001	<0.0015	0.0092
	12/27/2007	EPA 8260B	<0.001	<0.001	<0.001	<0.0015	0.0043
	10/27/2006	EPA 8260B	<0.001	<0.001	<0.001	<0.003	<0.0025
	9/27/2005	EPA 8260B	<0.001	<0.001	<0.001	<0.0005	<0.0025
OW #30	11/12/2008	EPA 8021B	<0.001	<0.001	<0.001	<0.002	0.88
	8/20/2008	EPA 8260B	<0.001	<0.001	<0.001	<0.0015	1.1
	12/28/2007	EPA 8260B	<0.001	<0.001	<0.001	<0.0015	0.29
	10/27/2006	EPA 8260B	<0.001	<0.001	<0.001	<0.003	<0.0025
	9/27/2005	EPA 8260B	<0.001	<0.001	<0.001	<0.0005	0.018
GWM-1	7/10/2008	EPA 8260B	0.001	0.0021	0.0039	0.019	0.12
	5/24/2007	EPA 8260B	0.016	<0.001	<0.001	<0.0015	0.23
	10/27/2006	EPA 8260B	0.012	<0.001	<0.001	<0.0015	0.16
GWM-2*	2/28/2008	EPA 8260B	<0.001	<0.001	<0.001	<0.0015	0.028

NOTES:

* GWM-2 is checked for water; if present a sample is collected

NS = no standard

Bold values represent values above the applicable standard

Example Table

Table 9: VOCs in Groundwater Monitoring and Observation Wells for 2008

Sample ID	Collection Date	Method	Acetone (mg/L)	1,2,4-Trimethylbenzene (mg/L)	1-Methylnaphthalene (mg/L)	Isopropylbenzene (mg/L)	Sec-Butylbenzene (mg/L)	1,2-Dichloroethane (EDC) (mg/L)
Standards	NMWQS		NS	NS	0.03	NS	NS	0.01
	EPA MCLS		NS	0.005	NS	0.005	0.005	0.005
	RRSL		22.0	NS	0.0023	NS	NS	0.00015
OW #13	11/14/2008	EPA 8260B	-	<0.001	-	-	-	-
	11/13/2008	EPA 8260B	<0.01	-	<0.004	<0.001	<0.001	<0.001
OW #14	11/14/2008	EPA 8260B	-	<0.001	-	-	-	-
	11/13/2008	EPA 8260B	<0.01	-	0.016	0.0015	0.0025	0.0018
	8/21/2008	EPA 8260B	-	-	0.012	-	0.002	-
OW #29	11/14/2008	EPA 8260B	-	<0.001	-	-	-	-
	11/13/2008	EPA 8260B	<0.01	-	<0.004	<0.001	<0.001	0.001
	8/21/2008	EPA 8260B	-	-	-	0.0016	-	-
OW #30	11/14/2008	EPA 8260B	-	<0.001	-	-	-	-
	11/13/2008	EPA 8260B	<0.01	-	<0.04	<0.001	<0.001	0.0013
GWM-1	7/10/2008	EPA 8260B	-	0.0046	-	-	-	-
SMW-2	8/14/2008	EPA 8260B	0.00753	-	-	-	-	-

NOTES:

NS = no standard

- = no detect

Bold values represent values above the applicable standard

Quarterly sampling began Fourth Quarter 2008 for OW-14, OW-29, and OW-30